

REMARKS/ARGUMENTS

Claim Amendments

The Applicant has amended no claims. Applicant respectfully submits no new matter has been added. Accordingly, claims 1-18 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Response to Arguments

The Applicant appreciates the explanation of the Examiner's position. The Applicant agrees with the Keller opinion regarding attacking individual references. However, it would seem that a combination of the references would be insufficient to reject all the elements of the subject claim if a limitation of the rejected claim was not taught or suggested by any of the individual references. Essentially, if the limitation is not in any of the individual references, even the combination of references would lack that same support. As noted in the MPEP, "... prior art reference (or references when combined) must teach or suggest all of the claim limitations" (MPEP 2143). In that regard, the Applicant respectfully submits that the cited references still fail to teach or suggest each and every element of the presently pending independent claims.

Claim Rejections – 35 U.S.C. § 103 (a)

Claims 1-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kao (US PG-PUB NO. 2004/0077377) in view of Mesecher, et al. (US PATENT NO. 6,937,879) and further in view of Walton et al (US PATENT NO. 7,248,879). The Applicant respectfully traverses the rejection of these claims

As previously noted, the present invention discloses and claims a method of interference cancellation in radio communication signals received by a radio access unit of a radio communication system. The present invention receives radio signals from a plurality of directionally separated antenna elements. A first radio signal received at the antenna elements, from a first mobile communication unit, is obtained by weighing the signals by first weighing factors. A second radio signal from a second communication

unit is obtained by weighing the signals by second weighing factors. The first "weighed" radio signal from the first communication unit is then subtracted from the second "weighed" radio signal to obtain a corrected second radio signal. This process is iteratively conducted for each received signal, one signal at a time, for further radio communication units.

Previously, the Applicant noted that Kao is directed to combining signals to increase the strength of the signal received. Claim 1 of the present invention discloses subtraction of weighed signals from the received and weighed signals to provide a further, modified signal to provide better interference cancellation. The Applicant respectfully submits that the Kao reference lacks teaching, at least, a plurality of signal sources and the modification of the signals from that plurality by using the modified signals of each signal source to further modify the signals for the radio access unit.

Mesecher is cited as subtracting a first signal from a second signal providing a corrected second radio signal. The Mesecher reference discloses receiving, by more than one antenna, first and second signals from a single source (col. 8, lines 21-36). This is the opposite of the limitations in claims 1 and 11 of the present invention, wherein each of a plurality of sources provides a separate signal to the antenna means of claims 1 and 11. Neither Kao nor Walton provide support for rejection of this limitation.

Though the Examiner agrees that Mesecher teaches only interference in regard to fixed interference, Kao is cited as disclosing the plurality of radio signals transmitted by a wireless network subscriber (same as Applicant's communication unit). The conclusion reached is that modifying the Access Point of Kao to provide interference cancellation from a wireless subscriber is obvious. The Applicant respectfully disagrees. For one thing Kao teaches adding signals. Secondly, Mesecher, as in Kao does not disclose using the modified signals from each wireless subscriber (mobile communication unit) to further modify the originally modified signal of further subscribers (weighed signal from a first unit is subtracted from a weighed signal from a second unit)..

Furthermore, neither Kao nor Mesecher teach or suggest performing the iterative steps of the recited method for each received signal, one signal at a time. Kao and Mesecher do not teach or suggest receiving a plurality of signals, and for each received signal, correcting the signal iteratively.

The Walton reference is cited for reconstructing the first and second radio signal. The Applicant agrees that Walton discloses modifying signals. But, the signals that are being modified are signals received by a terminal (applicant's mobile communication unit) from a MIMO antenna (Figure 7 and further in column 23 line 56-column 24, line 58). Again, this is the opposite of the Applicant's claims where a plurality of mobile communication units transmits to a multi-element antenna.

The Walton, Kao and Mesecher references, individually or in combination, fail to teach all the elements of claim 1 and analogous claim 11. This being the case the Applicant respectfully requests withdrawal of the rejection of claims 1 and 11.

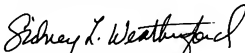
Claims 2-10 and 12-18 depend from claims 1 and 11 and recite further limitations in combination with the novel elements of claims 1 and 11. Therefore, the allowance of claims 1-18 is respectfully requested.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for all pending claims.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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